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AN ECONOMIC CLASSIFICATION OF LAND IN THE WEYBURN-ESTEVAN AREA, SASKATCHEWAN
1941

v. 1

R. A. Stutt, and S. Mysak

Marketing Service - Economics Division
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in co-operation with
Department of Farm Management
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AN ECONOMIC CLASSIFICATION OF LAND IN THE WEYBURN-ESTEVAN AREA, SASKATCHEWAN, 1941.

R. A. Stutt(1) and S. Mysak(2)

Introduction

The economic classification of land in nine municipal divisions of the Weyburn-Estevan area is a continuation of a series of studies in land classification in South Saskatchewan inaugurated in 1935. Since that date, a total of 74 municipal divisions up to and including the 1941 surveyed area have been grouped into the various grades of agricultural land. This respresents a large portion of the 'problem' area, so designated in the drought years of 1930-1937.

Suitability for wheat production and the capacity of lands to produce is the basis of this economic classification of land. The assumptions and budgets set up in the original studies(3)(4) are retained and form the basis of the classification of land in the Weyburn-Estevan area. Past production of land as reflected in long time yields of wheat, soil mapping based on the work of the Soils Department, University of Saskatchewan and the present utilization of land are the main criteria in the rating of these lands.

It is taken for granted that use of land for wheat production is the highest and best use of agricultural lands within this area and the most effective manner by which farm operators can utilize their capital, labour and management. This is the typical farm organization in the area.

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(3) An Economic Classification of Land in Fifty-Six Municipal Divisions, South Central Saskatchewan, C.C.Spence and E.C. Hope, Technical Bulletin No. 36, Dominion Department of Agriculture, Ottawa.

(4) An Economic Classification of Land and Its Relation to Farm Income, Eyebrow-Lacadena Area, Saskatchewan 1939-40, C.C. Spence, S. Mysak and R.A. Stutt, mimeograph, Economics Division, Dominion Department of Agriculture.

The main value of such an economic land classification is in the determination and direction of public policy in regard to lands, for example, the adjustment of rural assessment, for instituting and maintenance of public services; for correcting the difficulties of school and other community problems. It will serve as a sound basis for investment of public and private funds in this area as well as a guide to the operators of farms and of landlords in planning the farm business. This group rating of land by quarter sections is the first scientific attempt to appraise the economic potentialities of the land based on its past performance in good and bad crop years.

The Area Included in This Survey

The Weyburn-Estevan area is situated in the southeastern part of Saskatchewan. The city of Weyburn is in the northwestern corner, Estevan in the southeast, the town of Stoughton in the northeast part of the area and the hamlet of Oungre in the southwest. The south side is the International boundary, touching on the State of North Dakota. It includes nine rural municipalities, namely, R.M. Estevan No. 5, R.M. Cambria No. 6, R.M. Souris Valley No. 7, R.M. Lomond No. 37, R.M. Cymri No. 36, R.M. Benson No. 35, R.M. Tecumseh No. 65, R.M. Griffin No. 66, and R.M. Weyburn No. 67. It adjoins on the east, the 56 municipal divisions in South Central Saskatchewan, of which an economic land classification has been reported.(1)

Physical Characteristics of the Area

Land Surface and Drainage--The area lies within the physiographic region known as the interior continental plain. The Missouri Coteau, which is a topographical feature, cuts the south west part of this area and includes Townships 1, Ranges 13, 14 and 15, Township 2, Ranges 14 and 15, and Townships 3 and 4, Range 15, located in R.M. Souris Valley No. 7. This escarpment ranges from 200 to 500 feet above the area lying to the east and is generally rolling to steep.

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(1) See reference (3) on Page 1.

With the exception of the Missouri Coteau in the south west and the extreme north east corner, near the Moose Mountains, the elevation of the area is approximately 1,800 to 1,900 feet above sea level.

Drainage is mainly to the south and east by means of the Souris River and to a lesser extent by Long Creek and Moose Mountain Creek, all of which are tributaries of the Assiniboine River. Much of the drainage, however, is effected locally by means of frequent sloughs. Many of these sloughs are alkaline, especially in the eastern part of the area. A number of these sloughs have been cultivated and are considered arable land.

Soils(1)--The whole area lies in the dark brown or intermediate prairie soil zone and in this respect differs from land similarly classified in previous years, practically all of which was located in the brown soil zone or short grass prairie region. Within this area are various soil "series" which are so called because of a similarity in the general character and appearance in their profiles, and which are of a common geological origin. The resulting soil profiles are due to the combined influence of climate, vegetation and parent material. Again the soils within any one soil series vary in the proportionate amounts of clay, silt and sand, making a finer division described as "soil types".

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(1) Soil Survey of Saskatchewan, Report No. 10, and private interviews, Department of Soils, University of Saskatchewan.

The clay or heavy textured soils in this area are mainly of the "Regina" series which are only found in the R.M. of Weyburn No. 67. "Weyburn" clay loam is found in the same municipality and to a lesser extent in R.M. Cambria No. 6.

The medium to heavy and medium soils are described as belonging to the "Echo", "Trossachs" and "Estevan" series and these make up the largest proportion of the total area in the nine municipalities. These soils are modified by the presence of certain preglacial material. The soil structure is referred to as "solonetz" and the material present in the characteristic depressions or "burn-outs" is impervious to water and plant roots, in varying degrees, being generally more acute in the "Echo" and to a lesser degree in the "Trossachs" and "Estevan" series, in the order named. The agricultural value of these soils decreases in direct relationship to the increase of the prevalence of "burn-outs". The texture of these soils is mainly loam with some areas of clay loam. The "Weyburn" series are generally of rougher topography than the above mentioned soils, lack uniformity and often are mapped with mixtures of other soil series.

The light textured soils are of the "Asquith", "Biggar" and "Weyburn" series, depending on the origin and stage of development of the soils. Soils of the "Asquith" and "Biggar" series are found only in R.M. Tecumseh No. 65, while light loams and fine sandy loams of the "Weyburn" series are found in R.M. Estevan No. 5 and R.M. Cymri No. 36, and also scattered throughout the area.

Land Settlement and Railways

Early settlement of this area took place in the rural municipalities of Weyburn No. 67 and on the east side in R.M. Tecumseh No. 65. A number of settlers trekked from Moosomin, located on the main line of the Canadian Pacific Railway, and settled near the Moose Mountains and carried on ranching ventures. Others came by way of overland routes from Brandon and later from closer points on the transcontinental line. However, the greater number of settlers came into the area by way of the "Soo Line" from the United States.

Table 1, shows the growth of farm population by census years and reveals that the majority of settlers arrived in the various municipalities in the 1901-1906 period and in some cases up to 1911.

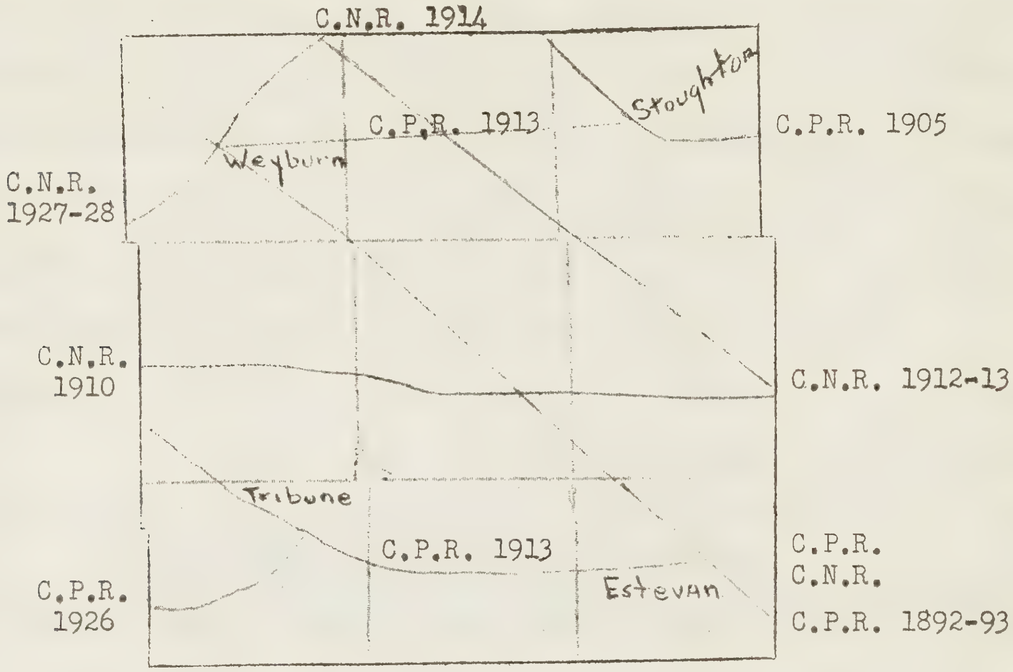
Table.1. FARM POPULATION BY RURAL MUNICIPALITIES FOR CENSUS YEARS INCLUDED IN THE WEYBURN-ESTEVAN AREA(1)

R.M.	1901	1906	1911	1916	1921	1926	1931	1936
No. 5	155	1,270	1,776	1,760	1,742	1,929	2,261	2,000
No. 6	--	941	1,611	1,706	1,469	1,490	1,611	1,503
No. 7	--	429	1,484	1,702	1,593	1,711	2,025	1,640
No. 37	--	1,071	1,628	1,382	1,238	1,333	1,414	1,217
No. 36	21	1,203	1,280	1,378	1,233	1,259	1,436	1,245
No. 35	41	1,420	1,145	1,595	1,590	1,843	1,972	1,746
No. 65	206	1,693	1,408	1,661	1,468	1,483	1,609	1,199
No. 66	--	956	1,134	1,304	1,359	1,372	1,574	1,326
No. 67	314	1,985	2,021	1,843	1,768	1,894	1,809	1,732
Total	737	10,968	13,487	14,331	13,460	14,304	15,711	13,608

(1) Census of Agriculture, Dominion Bureau of Statistics.

In most cases settlement immediately followed the building of branch railway lines in this area, an exception being the "Soo Line". This railway line was completed in 1892 and 1893 (see Figure 1, Page 6) but few of the settlers who came into the country via this route settled in the Weyburn-Estevan area and most of them located in other parts of Western

Figure 1. DATES OF CONSTRUCTION OF RAILWAY LINES IN WEYBURN-ESTEVAN AREA



Canada notably along the Calgary-Edmonton line. One is not surprised at this action after examining the lands in close proximity to the "Soo" line.

The above map shows the dates of construction of the various railway lines and branch lines. It will be noted that growth of population is related very closely to railway construction.

The early settlers encountered considerable hardship. During the drought of 1894 and 1895 many abandoned their homesteads. However, a large number obtained employment in railroad construction which enabled them to obtain ready money with which to tide over the difficulties of the first years of pioneering. With the adoption of "dry farming" methods and particularly the practice of summerfallowing, a great deal of the element of risk was eliminated. During the period of 1901-1910 precipitation proved less variable than experienced earlier, the price of wheat was relatively favourable and as a result of railway expansion this area prospered and trading centres such as Weyburn, Estevan and Stoughton were very thriving towns.

During the period of 1911 to 1916 farm population decreased to some extent in R.M. Lomond No. 37 and fairly drastic decreases were reported in the municipal divisions of Cambria No. 6, Souris Valley No. 7, Lomond No. 37, and in Cymri No. 36 for the 1916-1921 period. Large areas of soils of the "Echo" and "Trossachs" series are found there and the presence of "burn-outs" proved a disappointment and hindrance to agricultural development Decreases were reported in R.M. Tecumseh No. 65, particularly in Townships 8 and 9, Range 7, in which very light textured soils are to be found.

The main decrease in farm population in this area occurred from 1931 to 1936 and was due to unfavourable economic conditions and crop failues due to low precipitation. These conditions are well known.

The Survey

Field work was conducted during the months of June, July, August and September in 19~~3~~41 and a final check on this classification was made in October 1942. Each parcel of land was examined and in the light of information available as to average wheat yield, soil, topography, degree of stoniness, erosion and other pertinent data, a production rating was given it.(1

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(1) For further information in reference to methodology, see reference (3), Page 1.

In connection with actual examination of the land, yield records were obtained from 443 farm operators located on the various soil types, and detailed farm business records were secured from 268 farmers representing various methods of tenure. A few of these farms were located just east of the classified are in the vicinity of Oxbow and Alameda.

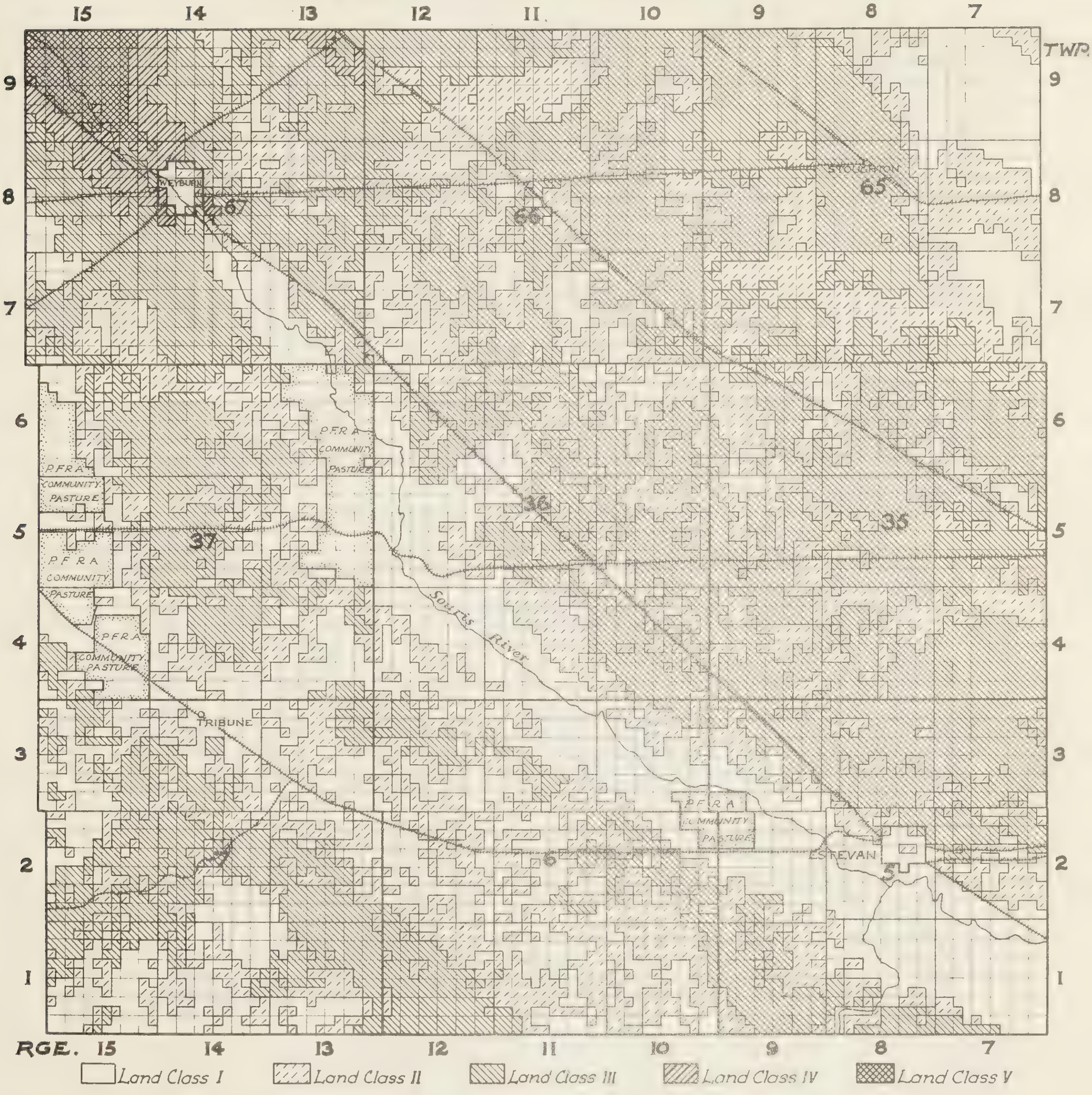
Proportion of Total Area in Each Land Class

In the Weyburn-Estevan area, the total acreage classified as land class I was 28.7 per cent, 28.8 per cent in land class II, 40.4 per cent in land class III, 1.2 per cent in land class IV, and 0.9 per cent in land class V. The total percentage included in land classes I and II is exactly the same as in the 65 municipal divisions to which reference was made earlier. However, the proportion of land in land classes IV and V is less. In the 65 municipal divisions, land classes III, IV and V comprise 28.5, 11.3 and 2.7 per cent respectively, of the total area. It will be apparent that these nine rural municipalities contain a higher proportion which can be termed 'fair wheat land' and a lesser proportion of 'good' and 'excellent' wheat land. The various amounts and percentages contained in the different land classes as compared with previous surveys are noted in Table 2. For the amounts and percentages of the different land classes in each municipality see Table 1 (Appendix).

Table 2. ACREAGE AND PERCENTAGE OF TOTAL LAND AREA IN EACH LAND CLASS FOR SIXTY-FIVE MUNICIPAL UNITS, 1936-1939, SOUTH CENTRAL SASKATCHEWAN, EYEBROW-LACADENA AREA, 1940 AND WEYBURN-ESTEVAN AREA, 1941, ECONOMIC SURVEYS.

Land Class	Sixty-Five Municipal Divisions		Eyebrow-Lacadena		Weyburn-Estevan	
	acres	%	acres	%	acres	%
I	5,316,815	39.4	784,389	40.4	527,927	28.7
II	2,440,460	18.1	322,575	16.6	528,794	28.8
III	3,844,718	28.5	539,945	27.8	742,682	40.4
IV	1,520,946	11.3	139,537	7.2	21,970	1.2
V	362,882	2.7	156,588	8.0	16,557	0.9
Total	13,485,821	100.0	1,943,034	100.0	1,837,930	100.0

ECONOMIC CLASSIFICATION OF LAND
WEYBURN — ESTEVAN DISTRICT



A Physical Description of the Area by Land Classes

The main large areas (see map) graded as land class I are (1) parcels bordering the Souris River which are not arable mainly due to poor soil and stoniness, (2) an area of "Asquith" fine sandy loam in R.M. Estevan No. 5 which has definitely inferior drought resisting qualities and as a result is unsuitable for wheat production, (3) an area north of Forget in R.M. Tecumseh No. 65 of "Biggar" sandy loam and a smaller area south of Forget of "Weyburn" loam to light loam and "Biggar" gravel to sandy loam. These latter areas were graded as land class I on account of inferior soil, (4) another area running in a southeasterly direction in R.M. Lomond No. 37 and Cambria No. 6 in which the severity of "burnouts" varies in intensity, (5) parcels dispersed throughout the general area in which low arability, stoniness, poor physical and textural qualities of the soil, inferior drought resisting qualities, rough or steep topography and abandonment are pronounced. Past performance of these parcels have been relatively unfavourable for wheat production.

Land graded as land class II ranges from those of light textured soils to heavy clays with a range in arability from thirty to one hundred per cent. The light textured soils with a relatively low average yield of wheat require more arable acreage than heavier textured soils to receive a comparable return. The greatest amount of marginal land (land class II) is found in R.M. Cambria No. 6 and R.M. Griffin No. 66.

Parcels included in land class III, contain a higher proportion of arable land than land classes I and II (see Table 3, Page 10).

Land class III parcels in this are are found mainly on loams of the "Weyburn", "Weyburn and Estevan", "Trossachs" and "Estevan" series. Some parcels located on clay loam soils are rated as land class III, owing to the

Table 3. PERCENTAGE ACRES ARABLE OF TOTAL ACREAGE IN EACH LAND CLASS BY RURAL MUNICIPALITIES, WEYBURN-ESTEVAN AREA, 1941.

Rural Municipality	Land Classes I	II	III	IV	V	All
	%	%	%	%	%	%
Estevan No. 5	27.6	83.7	93.6	--	--	64.2
Cambria No. 6	27.7	79.5	92.8	--	--	60.1
Souris Valley No. 7	32.1	79.3	94.1	--	--	65.9
Lomond No. 37	14.7	79.1	92.9	--	--	51.8
Cymri No. 36	25.3	79.9	90.8	--	--	62.2
Benson No. 35	23.9	77.1	91.3	--	--	83.9
Tecumseh No. 65	25.8	80.2	88.4	--	--	71.0
Griffin No. 66	33.8	73.4	85.4	--	--	74.6
Weyburn No. 67	19.8	75.2	92.8	97.7	98.6	81.5
Total	25.2	78.5	91.0	97.7	98.6	68.3

lack of sufficient arable land or other factors somewhat unfavourable. Parcels located on "Weyburn and Estevan" loam with about 130-135 acres arable, of level to undulating topography, few to many stones, requiring hauling, are typical of this land class.

Parcels graded as land class IV were of clay loam or clay textures and more favourable in regard to physical characteristics than land class III. Land included in land class V is practically 100 per cent cultivatable, heavy clay soil, level to undulating, well drained and free from stones. Parcels graded as land class IV and V are found only in R.M. Weyburn No. 67 in this area.

Ownership and Tenure

Table 4, Page 11, presents the reported ownership of land based on municipal records for each land class. The amount of privately owned land of the whole area is 79.4 per cent as compared to 75.6 per cent for the 56 municipal divisions in south central Saskatchewan reported. A slightly lower percentage of land was privately owned by persons living in the locality but

Table 4. STATEMENT OF LAND OWNERSHIP LAST RECORDED ACCORDING TO MUNICIPAL RECORDS, BY LAND CLASSES, WEYBURN-ESTEVAN AREA, 1941.

Ownership	Land Classes					
	I	II	III	IV	V	All
	%	%	%	%	%	%
Private, living in locality	34.6	52.5	62.6	91.3	87.0	52.3
Private, living elsewhere in Saskatchewan	5.7	6.5	6.3	2.2	1.0	6.1
Private, living outside Saskatchewan	22.2	25.3	17.9	4.3	8.2	21.0
Total Privately Owned	62.5	84.3	87.0	97.8	96.2	79.4
Rural Municipality	2.8	0.2	---	--	--	0.9
Crown Land	20.6	1.3	0.5	0.7	--	6.5
Hudson's Bay Company	2.2	0.6	--	--	--	0.8
Railway Companies	2.1	0.3	0.2	--	--	0.8
Mortgage, Insurance and Trust Companies	9.4	12.6	11.6	1.5	3.8	11.0
Soldier Settlement Board	0.3	0.7	0.7	--	--	0.6
No information	0.1	--	--	---	--	--

21.0 per cent was privately owned by persons living outside of Canada, whereas only 5.5 per cent was owned by this group of individuals in the classified area included in the previous reference. Owners of this type in the area known as the "Soo Line" were mainly residents of the United States who acquired lands for their own use and for speculation in the early days of land settlement.

It is of interest to note that 34.6 per cent of land class I and 52.5 per cent of land class II, or a total of 182,770 acres in land class I and 277,847 acres in land class II was owned by private owners residing in the area at the time of the survey. Nearly all of the lands belonging to rural municipalities, Department of Natural Resources and the Hudson's Bay Company are in land class I. The land owned by mortgage and insurance companies is scattered amongst the various land classes with a tendency to be located in land classes I and II. The fact that the area included in the P.F.R.A. community pastures located in R.M. Lomond No. 37, R.M. Cambria No. 6 and R.M. Estevan No. 5 is classed as Crown Land tends to obscure the amount of lands which previously was owned by mortgage and insurance companies.

Occupied, Vacant and Abandoned Land

The per cent of the total area occupied during 1941 in the Weyburn-Estevan area was 76.8. This includes lands in community pastures, a total of 57,846 acres or 3.1 per cent of the area. Thus 73.7 per cent of the area was occupied by residents in that vicinity or nearby for farming or grazing purposes and over which an active claim was exercised.

This amount of occupied land varied considerably by rural municipalities. R.M. Griffin No. 66 had the lowest proportion--65.2 per cent--although only 61.2 per cent was occupied by farmers in R.M. Lomond No. 37. R.M. Weyburn No. 67 was occupied to the extent of 91.2 per cent of its total land area. Table 5 shows the amount of land occupied, vacant and abandoned by land classes. Taking the area as a whole, the Weyburn-Estevan area had the lowest percentage of land occupied of any similar area classified to date. For 56 municipal divisions directly on the western border of this area, 78, 90, 97, 99 and 100 per cent of the total area for land classes I,

Table 5. PERCENTAGE OF OCCUPIED, VACANT AND ABANDONED LAND BY LAND CLASSES, WEYBURN-ESTEVAN AREA, 1941.

	Land Classes					
	I	II	III	IV	V	All
	%	%	%	%	%	%
Occupied	45.6	75.2	91.2	100.0	100.0	73.7
Leased community pastures	11.0	--	--	--	--	3.1
Vacant	30.8	8.3	1.4	--	--	11.8
Abandoned	12.6	16.5	7.4	--	--	11.4
Total	100.0	100.0	100.0	100.0	100.0	100.0

II, III, IV and V respectively was occupied. As a result of drought a greater percentage of land was vacant or abandoned in this area, especially in R.M.'s Griffin No. 66, Cymri No. 36 and Lomond No. 37.

Abandonment has taken place on land in this area practically since early settlement, a considerable number of farms were settled again and then subsequently abandoned. Lands containing acute development of "burnouts" are typical of this grade of land.

Occupied Farms

There were 2,538 occupied farms in the nine municipalities included in the Weyburn-Estevan area as recorded in 1941. All land operated as one unit was termed an 'occupied farm'. The land may be owned, rented and leased or may be held under any combination of the above groups.

There was a total of 46,404 acres held under grazing lease which is only 2.5 per cent of the total land area. 8.4 per cent of the occupied farms had leased land in addition to their agricultural land. There were 71.8 per cent of these farmers who had one additional parcel of leased land. Only two farms held more than one section of leased land. There are three community pastures located in this area, two of these being located in R.M. Lomond No. 37 and the other partly in R.M. Estevan No. 5 and in Cambria No. 6 (see map). These community pastures make up a total of 57,846 acres.

The following table (Table 6, Page 14) gives the distribution of occupied farms by land classes. It will be noticed that the greater number of occupied farms, 59.2 per cent, are in land class III. 37.5 per cent of the occupied farms were wholly or partly in land classes I and II, Only 3.3 per cent of all occupied farms are wholly or predominantly in land classes IV or V and these are located in R.M. Weyburn No. 67.

Table 6. NUMBER AND PERCENTAGES OF ALL OCCUPIED FARMS IN EACH LAND CLASS OR CLASSES. WEYBURN-ESTEVAN AREA, 1941.

	Number of farms	Percentage
	#	%
Land wholly in Land Class I	166	6.6
Predominantly in Class I with part in Land Class II	56	2.2
Predominantly in Class I with part in Land Class III or higher	11	0.4
Land wholly in Land Class II	314	12.4
Predominantly in Class II with part in Land Class I	243	9.6
Predominantly in Class II with part in Land Class III or higher	161	6.3
Land wholly in Land Class III	819	32.2
Predominantly in Class III with part in Land Class I and/or II	670	26.4
Predominantly in Class III with part in Land Class IV and/or V	15	0.6
Land wholly in Land Class IV	19	0.8
Predominantly in Class IV with part in Land Class I and/or II	--	--
Predominantly in Class IV with part in Land Class III and/or V	28	1.1
Land wholly in Land Class V	29	1.1
Predominantly in Class V with part in other land classes (Mostly L.C. IV)	7	0.3
All Land Classes	2538	100.0

The average size of farm for each land class does not vary to any significant extent. Three quarter section farms were the most frequent and typical of all land classes. The amount of arable land per farm is greater for fair (Land Class III), good (Land Class IV) and excellent (Land Class V) wheat lands as compared to Land Classes I and II. The percentage of arability shows a progressive increase from land class I to V. Where a farm has some land of a lower land class than the predominant land class for the farm, the percentage of arability is lower than for farms of the pure land class.

Table 7 gives the average size of the occupied farms and average acres arable according to each land class or land classes.

Table 7. AVERAGE SIZE OF OCCUPIED FARMS AND AVERAGE ACRES ARABLE ACCORDING TO EACH LAND CLASS OR CLASSES. WEYBURN-ESTEVAN, 1941.

Land Class	No. of farms	Average size	Acres arable	Per cent arable
	No.	(total acres)	(acres)	%
Land wholly in Land Class I	166	399	176	44.1
Predominantly in Class I with part in Land Class II	56	659	399	60.5
Predominantly in Class I with part in Land Class III or higher	11	617	428	69.4
Predominantly Land Class I	233	472	241	51.0
Land wholly in Land Class II	314	351	269	76.6
Predominantly in Class II with part in Land Class I	243	587	368	62.7
Predominantly in Class II with part in Land Class III or higher	161	723	564	78.0
Predominantly Land Class II	718	514	369	71.4
Land wholly in Land Class III	819	445	397	89.2
Predominantly in Class III with part in Land Class I and/or II	670	642	508	79.1
Predominantly in Class III with part in Land Class IV and/or V	15	614	573	93.3
Predominantly Land Class III	1504	535	466	87.1
Land wholly in Land Class IV	19	373	366	98.1
Predominantly in Class IV with part in Land Class I and/or II	--	--	--	--
Predominantly in Class IV with part in Land Class III and/or V	28	548	512	93.4
Predominantly Land Class IV	47	477	453	95.0
Land wholly in Land Class V	29	462	455	98.5
Predominantly in Class V with part in other land classes (mostly L.C. IV)	7	520	477	91.7
Predominantly Land Class V	36	473	459	97.0

All sets of farm buildings were given a rating during the survey. Five general grades were made for all occupied and abandoned buildings. The extent of the investment, the state of repair and to some degree the general appearance were used as the basis for this rating. Greater weight was given to size as indicated through the investment and some weight was given to general appearance only in border line cases. The five farm building ratings are set out in Table 8, as well as the distribution of occupied sets of farm buildings according to land classes.

In general the buildings on the higher land classes are larger and in better condition than on the lower land classes. A higher percentage of the farm buildings located on land classes I and II are in the two lowest ratings.

Table 8. DISTRIBUTION OF OCCUPIED FARM BUILDINGS ACCORDING TO RATING ON SIZE AND CONDITION BY LAND CLASSES. WEYBURN-ESTEVAN, 1941.

Rating of Farm Buildings	Percentage of Farm Buildings in Each Land Class					
	I	II	III	IV	V	All
	%	%	%	%	%	%
Small investment and in poor or fair condition	58.5	41.7	28.0	6.5	14.7	33.7
Medium investment and in poor or good condition	37.8	49.7	54.7	54.3	38.2	51.6
Medium investment in good condition or large investment in poor or fair condition	3.2	8.3	16.8	37.0	41.2	14.1
Medium to large investment and in fair to excellent condition	0.5	0.3	0.5	2.2	5.9	0.6
Large investment and in excellent condition	--	--	--	--	--	--
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number of sets of occupied farm buildings	188	638	1363	46	34	2269

Average Yields of Wheat

The productivity of land for wheat production is based on the record of past performance for the purpose of estimating yields which may be expected in the future. Average yields of wheat by soil groups for the 443 records taken from farm operators as well as a number obtained in the fall of 1939 in the R.M. Fillmore No. 96 are shown in Table 9. Rural Municipality Fillmore No. 96 is immediately north of the Weyburn-Estevan area and includes similar types of soils.

Table 9. AVERAGE WHEAT YIELDS FOR THE PERIOD 1921 TO 1936 FOR 443 FARMS IN WEYBURN-ESTEVAN AREA AND 41 FARMS IN RURAL MUNICIPALITY OF FILLMORE NO. 96.

Soil Group	Average yield of wheat per acre	Number of records
	bus.	no.
Sandy loams to gravelly sandy loams	--	--
Fine sandy loams to light loams	10.0	88
Eroded soils	--	--
"Burnouts", loams and clay loams	11.0	94
Loams	10.8	268
Clay loams	12.4	21
Clays	13.1	4
Heavy clays	15.5	9

Based on soil texture these records reveal a distinct advantage in yield per acre for soils of heavier texture. The results of the analysis of these records by soil type indicated a distinct variation in the yields on similar soil types within the area. The deviation of the 1921-1936 average wheat yields for each of the main soil types in each of the nine rural municipalities classified from the average of that particular soil type for the whole area was calculated. These deviations were weighted according to the acreage included in each soil type within each rural municipality and the average net deviation was calculated for the municipal unit as a whole. The individual yields were also plotted on a map of the area. It was on the basis of these final net deviations, the examination of the individual yields on the map and the study of precipitation records that the area was divided into high and low yielding zones. The high yielding zone included R.M. Weyburn No. 67 and R.M. Tecumseh No. 65, and Townships 8 and 9, Ranges 10, 11 and 12 of R.M. Griffin No. 66. The low yielding zone included the balance of the area.

The long time average yield (1921-1936) on soil types within the high yielding zone was approximately one bushel per acre higher than the long time yield on comparable soil types in the low yielding zone.

Assessed Values of Occupied Lands in Relation to Land Classes

The average assessments included in Table 10, Page 19 are the present basis of taxation as laid down under the new "earning value" assessment conducted by the Saskatchewan Assessment Commission in this area in 1939.(1)

There are not the extreme variations in assessment on comparable lands as was found in the analysis of assessment in 56 municipal divisions.(2) One exception is noted in the case of R.M. Benson No. 35, where the average assessment is greater than the average for the whole area in the same land class. Omitting this rural municipality the extreme range in average assessment in land class I is $1.18 per acre, $4.22 in land class II and $3.86 in land class III. The extreme range in average assessments in the previously mentioned studies for land classes I, II and III, were $9.99, $10.12 and $10.48. It would appear that the assessments in the Weyburn-Estevan area are on a more satisfactory and equitable basis.

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(1) The Saskatchewan System of Rural Land Assessment, Freeman, T.H., Scientific Agriculture, 21:7, March, 1941.

(2) See reference (3), Page 1, p.p. 33-36.

Table 10. ASSESSED VALUES OF OCCUPIED LAND BY LAND CLASS FOR EACH RURAL MUNICIPALITY(X) WEYBURN-ESTEVAN AREA, 1941.

Rural Municipality	Value Per Acre Land Classes					
	I	II	III	IV	V	All
	$	$	$	$	$	$
Estevan No. 5	5.82	12.62	15.04	--	--	10.91
Cambria No. 6	5.61	9.66	12.67	--	--	8.69
Souris Valley No. 7	5.23	9.58	13.97	--	--	9.51
Lomond No. 37	4.64	8.43	11.39	--	--	8.54
Cymri No. 36	5.12	9.91	12.39	--	--	9.29
Benson No. 35	9.49	12.82	14.57	--	--	13.82
Tecumseh No. 65	4.68	10.05	12.69	--	--	10.22
Griffin No. 66	4.75	8.40	11.18	--	--	9.40
Weyburn No. 67	4.80	8.87	13.99	21.88	30.66	14.28
Total	5.33	9.97	13.23	21.88	30.66	10.59

(X) Not including Community Pastures or parcels for which no information was available and/or no assessment.

An Analysis of the Farm Business of the Weyburn-Estevan Area

Complete and detailed farm management records were obtained on 268 farms selected at random on certain soil types within the area. These records covered the farm business from May 1, 1940 to April 30, 1941. Representative samples were obtained on land classes II and III only, which are typical of the area.

Land Use by Predominant Land Class--Table 11, Page 20, shows the utilization of land in 1940 in land classes II and III.

While there is not a great difference in average total acres per farm as between the land class II and III the percentage of uses for the various groups within land class III show a higher use of land. Of the total area, 82.2 per cent was improved per farm in land class III as against 73.1 per cent in land class II. The greatest amount of permanently idle land (26 acres) was in land class II. Permanently idle

Table 11. UTILIZATION OF LAND PER FARM BY PREDOMINANT LAND CLASS, WEYBURN-ESTEVAN AREA, 1941.

	Land Class II		Land Class III	
	acres	%	acres	%
Total Area	561	100.0	494	100.0
Unimproved	151	26.9	88	17.8
Improved	410	73.1	406	82.2
Permanently idle	26	4.7	7	1.4
Improved pasture and farmstead	12	2.1	14	2.9
Cropland (cultivated acreage)	372	66.3	385	77.9
Wheat	127	22.6	133	26.9
Oats and barley	50	8.9	53	10.7
Flax	3	0.5	2	0.4
Rye	7	1.3	7	1.4
Other crops	6	1.1	7	1.4
Idle 1940	56	10.0	58	11.8
Summerfallow	123	21.9	125	25.3
Number of records	64		204	

land was 4.7 per cent of the total area in land class II as against 1.4 per cent in land class III. This type of land is land which was farmed at some period, but which has been abandoned permanently for cropping purposes.

Cash Receipts by size of Farm--Cash receipts per farm are presented by size of farm in preference to a sort by land class due to the inclusion of only land classes II and III in this analysis. Table 12, Page 20 gives the amounts received per farm unit, including the landlord's share as well as that of the farm operator.

Receipts increased with increase in the size of farm with the exception of the full section farms. However, the total receipts of this group are greater than the three-quarter section farms due to increased amounts of feeds and supplies on hand.

Table 12. CASH RECEIPTS PER FARM UNIT BY SIZE OF FARM, WEYBURN-ESTEVAN AREA, 1941.

	Size of Farm (total acres)							
	160	320	480	640	800	960	1120	1280
	$	$	$	$	$	$	$	$
Crops	100	404	661	634	691	990	2107	1766
Live stock	77	136	222	239	314	408	410	504
Other farm produce	66	78	141	107	136	95	90	178
Equipment sales	7	7	12	29	52	85	30	110
Custom work	35	51	95	90	165	178	245	137
Previous year's crop	1	1	2	-	4	8	38	-
Other	17	49	26	40	209	20	6	3
Total	303	726	1159	1139	1571	1784	2926	2698
	%	%	%	%	%	%	%	%
Crops	33.0	55.7	57.0	55.7	44.0	55.5	72.0	65.4
Live stock	25.4	18.7	19.2	21.0	20.0	22.9	14.0	18.7
Other farm produce	21.8	10.7	12.2	9.4	8.7	5.3	3.1	6.6
Equipment sales	2.3	1.0	1.0	2.5	3.3	4.8	1.0	4.1
Custom work	11.6	7.0	8.2	7.9	10.5	10.0	8.4	5.1
Previous year's crop	0.3	0.1	0.2	--	0.2	0.4	1.3	--
Other	5.6	6.8	2.2	3.5	13.3	1.1	0.2	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Figures are given only for the quarter, half, three-quarter, section and section and one-half section farms.

Cash receipts from crops were very low in the case of the quarter section farms due to the low yield of wheat on those farms in 1940. With a yield of wheat comparable to the other size groups, the percentage of receipts from crops would be comparable. It would appear that the percentage of receipts from crops and live stock would not vary greatly between the various size groups. This is due to greater emphasis being placed on live stock on all sizes of farms in the transition area between the prairies and the park belt. In this area the half section farm was the most typical followed closely by the three quarter section farm.

A comparison on crop returns, live stock returns and other returns is of some interest and is presented in Table 13.

Table 13. CROP RETURNS AND LIVESTOCK RETURNS PER FARM ACCORDING TO THE TYPE OF TENURE, WEYBURN-ESTEVAN AREA, 1941.

	Returns							
	Crops		Livestock		Other		Total	
	$	%	$	%	$	%	$	%
Owners								
Operator	651	52.8	462	37.5	119	9.7	1232	100.0
Landlord	--	--	--	--	--	--	--	--
Farm Unit	651	52.8	462	37.5	119	9.7	1232	100.0
Part Owners								
Operator	786	45.9	535	31.3	201	11.7	1522	88.9
Landlord	190	11.1	--	--	--	--	190	11.1
Farm Unit	976	57.0	535	31.3	201	11.7	1712	100.0
Tenants								
Operator	345	33.2	374	36.0	91	8.7	810	77.9
Landlord	230	22.1	--	--	--	--	230	22.1
Farm Unit	575	55.3	374	36.0	91	8.7	1040	100.0
All Tenures								
Operator	574	45.3	447	35.3	126	10.0	1147	90.6
Landlord	119	9.4	--	--	--	--	119	9.4
Farm Unit	693	54.7	447	35.3	126	10.0	1266	100.0

Crop returns were calculated as follows:- crop sales, plus or minus change in inventory of seed, feed and supplies, plus previous year's crop sold during 1940. This figure represents normal sales of crops maintaining supplies at a uniform amount. Livestock returns were calculated as follows:- livestock sales plus any other type of livestock products sold, plus breeding fees, plus or minus change in inventory, minus livestock purchases.

The amounts and percentage figures of crop returns are close to those presented for crop receipts but livestock returns are greater due to the fact that larger numbers of live stock were being retained on the farms.

Farm Expenditures by Size of Farm--Farm expenses show a gradual increase by size of farm (Table 14). The percentage increases in a manner similar to the increase in cash receipts.

Table 14. FARM EXPENDITURES PER FARM UNIT BY SIZE OF FARM WEYBURN-ESTEVAN AREA, 1941.

	Size of Farm (total acres)					
	160	320	480	640	800	960
	$	$	$	$	$	$
Taxes	57	93	124	158	227	217
Tractor costs	36	32	83	140	179	194
Combine and separator	--	1	7	8	9	15
Auto (farm use)	11	15	25	28	33	27
Truck costs	2	4	1	6	18	22
Farm work	29	86	110	91	79	106
Seed purchased	24	41	58	52	53	92
Paid labour	15	21	52	64	125	194
Board of paid labour	7	5	9	19	23	35
Board of unpaid labour	12	10	25	20	16	23
Other	69	156	217	224	307	315
Total cash	262	464	711	810	1069	1240
Unpaid labour	36	41	91	73	54	87
Total Farm Expenses	298	505	802	883	1123	1327
	%	%	%	%	%	%
Taxes	19.1	18.4	15.5	17.9	20.2	16.4
Tractor costs	12.1	6.3	10.4	15.8	15.9	14.6
Combine and separator	--	0.2	0.9	0.9	0.8	1.1
Auto (farm use)	3.7	3.0	3.1	3.2	2.9	2.0
Truck costs	0.7	0.8	0.1	0.7	1.6	1.7
Farm work	9.7	17.0	13.7	10.3	7.1	8.0
Seed purchased	8.0	8.1	7.2	5.9	4.7	6.9
Paid labour	5.0	4.2	6.5	7.2	11.1	14.6
Board of paid labour	2.4	1.0	1.1	2.2	2.1	2.7
Board of unpaid labour	4.0	2.0	3.1	2.3	1.4	1.7
Other(1)	23.2	30.9	27.1	25.4	27.4	23.7
Total cash	87.9	91.9	88.7	91.7	95.2	93.4
Unpaid labour	12.1	8.1	11.3	8.3	4.8	6.6
Total Farm Expenses	100.0	100.0	100.0	100.0	100.0	100.0

(1) Includes small hardware, twine, hail and fire insurance, feed purchased, breeding fees, repairs to buildings, blacksmithing, telephone and rent of pasture.

These results indicate the relatively fixed amount for taxes by size of farm. Other current operating expenses such as auto (farm use), seed purchased and 'other' are also relatively stable. Tractor costs, truck costs and paid labour indicate a higher degree of power farming on larger sized units.

Cost of living--In this study the cost of living for farm families did not indicate any significant differences between those farms located on land classes II and III. However, the amounts expended increased appreciably with an increase in the size of farm (see Table 15).

Table 15. FARM CASH LIVING EXPENSES BY SIZE OF FARM
WEYBURN-ESTEVAN AREA, 1941

	Size of Farm (acres of cropland)									
	0 - 249		250 - 399		400 - 549		550 plus		Total	
	$	%	$	%	$	%	$	%	$	%
Groceries,fruit,meat	158	42.6	172	37.8	216	36.3	191	29.1	183	36.5
Fuel and light	41	11.1	46	10.1	56	9.4	65	9.9	50	10.0
Maids hired	6	1.6	4	0.9	14	2.4	14	2.1	8	1.6
Total Board	205	55.3	222	48.8	286	48.1	270	41.1	241	48.1
Auto (personal)	15	4.0	18	4.0	31	5.2	40	6.1	24	4.8
Life insurance	7	1.9	11	2.4	7	1.2	35	5.3	13	2.6
Personal	25	6.7	36	7.9	53	8.9	57	8.7	41	8.2
Education	17	4.6	15	3.3	15	2.5	46	7.0	20	4.0
Church and charity	9	2.4	16	3.5	18	3.0	29	4.4	17	3.4
Health	15	4.0	42	9.2	57	9.6	56	8.5	42	8.4
Clothing	60	16.2	76	16.7	100	16.8	94	14.3	81	16.1
New furnishings	18	4.9	19	4.2	28	4.7	30	4.6	22	4.4
Total	371	100.0	455	100.0	595	100.0	657	100.0	501	100.0
Number of Farms	57		105		67		39		268	

This table shows the amounts and percentages of various items in the total cash living expenses. It is noticeable that the essentials of life, groceries, fruit, meat and fuel and light decreased in percentages of total as the size of farm increased. Total cash board was

55.3 per cent on farms with up to 249 acres of cropland. These were mainly quarter and half section farms, and 41.1 on large farms of 550 acres of cropland or more. Higher standards of living were associated with larger farms.

Table 16 gives the total cash living expenses by size of farm and yield of wheat in 1940. Yield of wheat has a pronounced effect on funds available for cash living in the smaller sized farms and to a lesser extent on the larger sized farms.

Table 16. RELATION OF CASH LIVING EXPENSES TO SIZE OF FARM AND AVERAGE YIELD OF WHEAT IN 1940. WEYBURN-ESTEVAN AREA, 1941.

Size of farm (acres cropland)	Bushels of Wheat per Acre					
	0-4	5-8	9-12	13-16	17 plus	All Yields
	$	$	$	$	$	$
0 - 249	302	330	420	478	366	371
250-399	391	415	494	494	477	455
400-549	566	544	520	684	721	595
550 plus	538	650	614	767	786	657
All Sizes	432	464	499	575	595	501

Financial Summary

It was found that yield of wheat per acre had the greatest effect upon financial success of farm operations, outside of the effect of size of farm. As the yield of wheat per acre reflects the productivity of any particular soil type, it is therefore the chief factor in a classification of land based on wheat production. Net income was used as a measure of farm success and is defined as the surplus accruing to the farm after deductions have been made for operating expenses, maintenance of farm capital and farm family living. These charges do not include any payment of principal or interest on indebtedness. The basis of an economic classification of land in Saskatchewan is that little or no surplus of farm revenue can be expected from land class II (marginal for wheat production) over a period of years from a farm of average size with typical management and ordinary farm practices for the area.

As the farms included in this grouping (Table 17) are of comparable sizes, the profitableness of farming was due mainly to variation in average yields of wheat. There was some evidence to show that larger receipts from live stock and live stock products were associated with better grades of land and consequently with higher yields of wheat.

The low net incomes and small amounts expended on cash family living show the relatively low level of living received by operators on farms with low wheat yields in 1940. Low net incomes are also associated with poorer grades of land as shown by the slightly lower average values placed on the real estate and machinery and equipment by the farm operators.

To delimit further the margin of profitableness Table 18, Page 28 has been made by sorting net incomes by size of farm and average yield of wheat.

The larger sized farms (over 250 acres) having yields of 9-12 bushels have net incomes close to the margin while the smallest sized group (0-249 acres cropland) need at least 13-16 bushels per acre of wheat to be marginal.

Table 17. THE AVERAGE OPERATING STATEMENT PER FARM BY YIELD OF WHEAT FOR 268 FARM UNITS, WEYBURN-ESTEVAN AREA, 1941.

	Bushels of Wheat					
	0-4	5-8	9-12	13-16	17 plus	Total
	$	$	$	$	$	$
Receipts						
Wheat	93	317	583	822	1206	530
Other crops	12	33	91	72	149	64
Livestock and livestock products	286	299	439	295	386	340
Other(1)	125	93	163	201	197	149
Total	516	742	1276	1390	1938	1083
Expenses						
Current operating(2)	570	573	692	735	940	676
Capital expenditures	137	181	183	185	297	187
Total	707	754	875	920	1237	863
Receipts minus expenses	-191	-12	401	470	701	220
Net increase or decrease in inventories	-31	40	102	216	505	130
Net farm income	-222	28	503	686	1206	350
Cash cost family living	432	464	499	575	595	501
Net income	-654	-436	4	111	611	-151
Number of farms	63	60	64	46	35	268
Average acres of wheat	126	136	134	130	131	132
Average yield of wheat	2.2	6.6	10.5	14.6	20.3	9.7
Average farm capital						
Real estate	6254	6195	6526	6354	7652	6505
Livestock	894	860	1040	937	1071	952
Machinery and equipment	1033	1076	1396	1178	1300	1189
Seed,feed and supplies	208	252	275	300	403	276
Total	8389	8383	9237	8769	10426	8922
Average size of farm						
Farm land (quarters)	3.2	3.0	3.2	3.2	3.4	3.2
Grazing lease (quarters)	0.2	0.2	0.2	0.1	0.1	0.2
Total Operated	3.4	3.2	3.4	3.3	3.5	3.4
Acres of Cropland	372	212	381	390	370	382

(1) Includes receipts from farm work outside of operator's farm, equipment sales or allowance for machinery sold or traded in and remunerations from such activities as secretary treasurer of school district.

(2) Omits value of unpaid labour (e.g. son working on home farm) and board of unpaid and paid labour.

Table 18. RELATION OF NET INCOME TO SIZE OF FARM AND AVERAGE YIELD OF WHEAT, WEYBURN-ESTEVAN AREA, 1941.

Size of farm (acres of cropland)	Bushels of Wheat per Acre				
	0 - 4	5 - 8	9 - 12	13 - 16	17 plus
	$	$	$	$	$
0 - 249	-403	-320	-136	-9	204
250-399	-600	-438	-13	96	466
400-549	-773	-515	-84	186	760
550 and over	-1041	-448	411	197	936

When arranged by net income (Table 19, Page 29) it is shown further that net income is directly related to average yield of wheat. About 12 bushels per acre of wheat were necessary to obtain a plus net income at the price and cost relationship ruling in 1940.

The benefits resulting to the farmer by receiving the Prairie Farm Assistance bonus is revealed in Table 20, Page 29. The records obtained in the Blucher-Colonsay study, 1941 were included with those of the Weyburn-Estevan area to increase the sample in each group.

It was noted that the breaking point between the minus and plus net incomes was not appreciably changed by the addition of the Prairie Farm Assistance bonus. However this assistance aided in relieving distress in crop failure and low yielding areas. The smallest sized group of farms gave on the average a positive net income only when the yield was above 16 bushels of wheat per acre while the other size groups showed a surplus when the yield was 9 bushels or more.

Table 19. FINANCIAL SUMMARY OF FARM UNITS BY NET INCOME WEYBURN-ESTEVAN AREA, 1941.

	Net Income						
	-$1000 & over	-$999 to -$500	-$499 to 0	$1 - 500	$501 to $1000	$1001 to $1500	$1501 plus
	$	$	$	$	$	$	$
Total cash receipts	712	684	865	1280	1865	2117	4545
Expenses:							
Current operating	941	647	551	661	819	871	1950
Capital expenditures	208	150	134	222	223	228	1105
Total	1149	797	685	883	1042	1099	3055
Receipts minus expenses	-437	-113	180	397	823	1018	1490
Net change in inventories	-181	-77	32	329	349	740	1809
Net farm income	-618	-190	202	726	1172	1758	3299
Cash cost farm living	612	473	461	526	534	578	862
Net income	-1230	-663	-259	200	638	1180	2437
Number of Farms	15	61	106	50	24	7	5
Average Farm Capital:							
Real estate	9887	7319	5263	5786	7700	8167	11916
Livestock	1245	810	744	1084	1166	1094	3670
Machinery and equipment	1732	1185	1039	1090	1342	1090	3199
Feed, seed, supplies	378	232	214	286	364	422	1033
Total	13242	9546	7260	8246	10572	10773	19818
Acres of cropland	552	401	330	363	439	414	606
Acres of wheat	190	140	109	130	148	152	224
Average yield of wheat	2.7	5.2	9.2	12.4	15.8	21.8	19.8

Table 20. RELATION OF NET INCOME TO SIZE OF FARM AND AVERAGE YIELD OF WHEAT INCLUDING PRAIRIE FARM ASSISTANCE PAYMENTS. WEYBURN-ESTEVAN AND COLONSAY-BLUCHER AREAS, SASKATCHEWAN. YEAR ENDING APRIL 30, 1941.

Acres	Bushels of Wheat Per Acre				
	0-4	5-8	9-12	13-16	17 and over
	$	$	$	$	$
0-249	-293	-191	-43	-16	171
250-399	-383	-227	103	182	403
400-549	-429	-254	222	298	557
550 and over	-667	-149	303	521	1538

Relation of Net Income to Land Class and Livestock Investment

To show the relation between land class and net income and also to indicate the effect of additions of livestock to the present basis of land classification Table 21, Page 31 was prepared. Records of farm businesses obtained outside the nine rural municipalities included in the land classification area were eliminated as well as the records obtained in R.M. Tecumseh No. 65 where the average municipal wheat yield was only 4 bushels per acre in 1940.

Receipts from livestock and livestock products are a relatively high percentage of total cash receipts. This is due mainly to the low average yield of wheat in 1940. A noticeable increase in net income is shown for farms having over the average livestock investment for both land classes II and III as compared to those farms having less than average livestock investment. Farms in land class III had an average net income of -$245 as compared to-$397 for land class II. All groups showed minus net incomes due mainly to the low average yields of wheat. Applying average yields of similar soil types (see Table 9) and average prices to the present set-up of these farms, would give positive net income to these farms but would not alter the present relationship to land class.

A study of the average farm capital suggests that farmers having above average livestock investment also are above average in managerial ability. In all cases these farms have higher investments in machinery and equipment as well as greater stocks of seed, feed and supplies on hand. Average investment in land is slightly higher per

Table 21. AVERAGE OPERATING STATEMENT PER FARM ACCORDING TO LAND CLASS, OVER AND BELOW AVERAGE LIVESTOCK INVESTMENT, INCLUDING ALL FARMS WITHIN THE CLASSIFICATION AREA EXCEPT THOSE LOCATED IN R.M. TECUMSEH NO. 65. WEYBURN-ESTEVAN AREA, 1941.

	Land Class II			Land Class III		
	Below average livestock investment	Above average livestock investment	All land class II	Below average livestock investment	Above average livestock investment	All land class III
	$	$	$	$	$	$
Receipts						
Wheat	321	460	375	490	699	559
Other crops	14	86	42	43	40	42
Livestock and livestock products	194	452	293	196	610	333
Other	162	189	173	115	148	126
Total	691	1187	883	844	1497	1060
Expenses						
Current operating	580	795	693	583	957	707
Capital expenditures	139	369	228	116	301	177
Total	719	1164	921	699	1258	884
Receipts minus expenses	-28	23	-38	145	239	176
Net change of inventory	-3	296	142	24	194	80
Net farm income	-31	319	104	169	433	256
(1) Cash cost family living	501	501	501	501	501	501
Net income	-532	-182	-397	-332	-68	-245
Number of farms	19	12	31	83	41	124
Acres of wheat 1940	124	146	133	122	188	144
Average yield wheat 1940	6.1	7.7	6.7	9.3	9.9	9.5
Average Farm Capital						
Land	4206	5916	4868	3966	5764	4561
Buildings	1399	1905	1595	1540	2564	1879
Livestock	541	1534	926	578	1382	844
Machinery and equipment	1016	1445	1182	914	1812	1211
Feed, seed, supplies	204	322	249	207	390	267
Total	7366	11122	8820	7205	11912	8762
Average Size of Farm						
Farm land (quarters)	3.2	4.1	3.6	2.7	3.9	3.1
Grazing lease (quarters)	--	0.2	0.1	--	0.3	.1
Total operated	3.2	4.3	3.7	2.7	4.2	3.2
Acres of cropland	341	445	381	352	480	394

(1) Adjusted to average of all farms.

acre for farms having more than average livestock investment but does not show any significant difference for land class. Farms having greater number of livestock had more investment in buildings.

This table indicates further that farmers in the Weyburn-Estevan area having above average livestock investment usually have more acres of wheat than farmers having less livestock per farm. This situation differs from the typical farm located in the brown soil zone or short grass prairie region. In the latter area increases in acres of wheat are usually accompanied with decreases in livestock investment.

- Appendix -

Table 1. ACREAGE AND PER CENT OF TOTAL LAND AREA IN EACH LAND CLASS FOR NINE MUNICIPAL DIVISIONS INCLUDED IN SURVEY, 1941. WEYBURN-ESTEVAN AREA.

R.M.	Land Classes					
	I	II	III	IV	V	All
	acres	acres	acres	acres	acres	acres
Estevan No. 5	82486	39942	75913	--	--	198341
Cambria No. 6	96589	82206	36931	--	--	205726
Souris Valley No. 7	79772	56602	68724	--	--	205098
Lomond No. 37	99810	48881	57474	--	--	206165
Cymri No. 36	69525	66189	69521	--	--	205235
Benson No. 35	10198	59577	136633	--	--	206408
Tecumseh No. 65	48213	66953	90270	--	--	205436
Griffin No. 66	25913	74600	105654	--	--	206167
Weyburn No. 67	25421	33844	101562	21970	16557	199354
Total	527927	528794	742682	21970	16557	1837930
	%	%	%	%	%	%
Estevan No. 5	41.6	20.1	38.3	--	--	100.0
Cambria No. 6	42.1	40.0	17.9	--	--	100.0
Souris Valley No. 7	38.9	27.6	33.5	--	--	100.0
Lomond No. 37	48.4	23.7	27.9	--	--	100.0
Cymri No. 36	33.9	32.2	33.9	--	--	100.0
Benson No. 35	4.9	28.9	66.2	--	--	100.0
Tecumseh No. 65	23.5	32.6	43.9	--	---	100.0
Griffin No. 66	12.6	36.2	51.2	--	--	100.0
Weyburn No. 67	12.8	17.0	50.9	11.0	8.3	100.0
Average	28.7	28.8	40.4	1.2	0.9	100.0

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